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EXAMINER	
LEE, CHUN KUAN	
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2181	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/590,260	JOHANSEN ET AL.	
	Examiner	Art Unit	
	Chun-Kuan Lee	2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 July 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,4,8-13,16,17 and 19-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,4,8-13,16,17 and 19-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 July 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

RESPONSE TO ARGUMENTS

1. Applicant's arguments with respect to claims 1, 3-4, 8-13, 16-17 and 19-22 have been considered but are moot in view of the new ground(s) of rejection. Objection to the Abstract is withdrawn. Rejection of claim 19 under 35 U.S.C. 112 first paragraph is withdrawn. Rejection of claims 3-6, 14-15 and 17-19 under 35 U.S.C. 112 second paragraph is withdrawn. Currently, claims 2, 5-7, 14-15 and 18 are canceled, and claims 1, 3-4, 8-13, 16-17 and 19-22 are pending for examination.

2. In response to applicant's arguments (on page 8, last paragraph to page 9, 2nd paragraph) regarding the independent claim 1 rejected under 35 U.S.C. 103(a) that the combination of references does not teach/suggest the claimed features of an end termination and a repeater; applicant's arguments have fully been considered, but are not found to be persuasive.

The examiner respectfully disagrees, as Sitte teaches an end termination (e.g. termination connector) (col. 16, ll. 1-4) and Adamson teaches a repeater (Fig. 1, ref. 150 and col. 3, ll. 44-57).

3. In response to applicant's arguments (on page 9, last paragraph) regarding the independent claim 16 rejected under 35 U.S.C. 103(a) that the combination of references does not teach/suggest the claimed features of at least two control signal

supply cables that are electrically joined at the connector; applicant's arguments have fully been considered, but are not found to be persuasive.

The examiner respectfully disagrees, as the examiner relied on the references as following for the teaching of the above claimed features:

Sitte teaches a cable unit comprises a junction (Fig. 1, ref. 20 and Fig. 11, ref. 220, 230, 710, 712), at least one electrical connector (e.g. electrical connector located between the junction (Fig. 11, ref. 220, 230, 710, 712) and the sensors Fig. 11, ref. 702, 720)) and at least two control signals supplied between said junction and said electrical connector (e.g. control signal supply between the junction and the sensor element 702 of Fig. 11) (Fig. 1; Fig. 11; col. 4, ll. 39-45; col. 7, l. 8 to col. 8, l. 51 and col. 15, l. 18 to col. 17, l. 49), wherein the actuators would may be utilized in place of the sensors for receiving the supplied control signals.

Longsdorf teaches at least a cable connected to a connector (e.g. connector of a sensor) that are electronically jointed at the connector (Fig. 1-2; col. 3, l. 29 to col. 4, l. 50 and col. 5, ll. 24-30), in combination with Sitte's above teaching, the at least two control signal further includes at least two control signal supply cables that are electronically jointed at the connector, wherein the joining at the connector is implemented via a loop current (i.e. current loop).

4. In response to applicant's arguments (on page 10, 2nd paragraph) regarding the claim 17 rejected under 35 U.S.C. 103(a) that the combination of references does not

teach/suggest the claimed feature of at least two control signal return cables; applicant's arguments have fully been considered, but are not found to be persuasive.

The examiner respectfully disagrees, as the examiner relied on the references as following for the teaching of the above claimed features:

Sitte teaches at least two control signal returned from the sensors (Fig. 11, ref. 702, 720) (col. 4, ll. 39-45; col. 7, l. 8 to col. 8, l. 51 and col. 15, l. 18 to col. 17, l. 49).

Longsdorf teaches at least a cable connected to a connector (e.g. connector of a sensor) that are electronically jointed at the connector (Fig. 1-2; col. 3, l. 29 to col. 4, l. 50 and col. 5, ll. 24-30), in combination with Sitte's above teaching, the at least two control signal further includes at least two control signal return cables.

5. In response to applicant's arguments (on page 10, last paragraph to page 11, 2nd paragraph) regarding the independent claim 19 rejected under 35 U.S.C. 103(a) that the combination of references does not teach/suggest the claimed features of two signal cable which each comprises a current loop; Applicant's arguments, have fully been considered, but are not found to be persuasive.

The examiner respectfully disagrees, as the examiner relied on the references as following for the teaching of the above claimed features:

Sitte teaches at least two control signal supplied between said junction and said electrical connector (e.g. control signal supply between the junction and the sensor element 702 of Fig. 11) (Fig. 1; Fig. 11; col. 4, ll. 39-45; col. 7, l. 8 to col. 8, l. 51 and col. 15, l. 18 to col. 17, l. 49).

Longsdorf teaches a control system comprising at least a cable connected to a connector (e.g. connector of a sensor) having a current loop (e.g. loop current) (col. 3, l. 29 to col. 4, l. 50 and col. 5, ll. 24-30), in combination with Sitte's above teaching, the at least two control signals further include at least two control signal cables, and each cable's current loop, interconnecting the sensor to the junction, would route through the respective electrical connector and the junctions.

6. In response to applicant's arguments (on page 11, 2nd paragraph) regarding the independent claim 19 rejected under 35 U.S.C. 103(a) that there is not motivation to combine the references; applicant's arguments have fully been considered, but are not found to be persuasive.

Please note that the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, one skilled in the art would be motivated to combine the references not only because both teachings are associated with interconnecting the sensor to the processor/junction via the Controller Area Network (CAN) protocol, it is also well known that current loop have the benefit of providing accurate signaling and able to supply power to the devices; furthermore, the combination further have the additional benefit of

having a self diagnostic and set-up process transmitter that is able to communicate when there is inadequate power on the process link (Longsdorf, col. 2, ll. 29-36).

I. REJECTIONS BASED ON PRIOR ART

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1, 3-4, 8-13 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Sitte (US Patent 5,469,150) and Adamson et al. (US Patent 7,170,238).

8. As per claim 1, AAPA teaches a control system for a subsea installation, the control system comprising:

a control module (Specification, p. 1, ll. 8-33); and

a plurality of devices (e.g. sensors, actuators) which are connected to the control module (Specification, p. 1, ll. 8-33);

AAPA does not teach the control system comprising: a common bus … the plurality of devices are each removably connectable to the common bus …a bus controller having a unique address … means for communicating with each device over the common bus … an end termination and a repeater ….

Sitte teaches a control system comprising:

a common bus (Fig. 1, ref. 10 and Fig. 11, ref. 770, 772, 780, 782) which is connected to a control module (Fig. 5-8, ref. 220-230 and Fig. 11, ref. 220, 230, 704, 710, 712, 714, 730) and which comprises at least one cable unit (Fig. 1 and col. 15, l. 18 to col. 17, l. 49); and

a plurality of devices (Fig. 1, ref. 14, 16, 18-19, 21-22, 26-27, 29-30, 34) are each removably connectable to the common bus (Fig 1, ref. 10) (col. 7, l. 8 to col. 8, l. 51 and col. 15, l. 18 to col. 17, l. 49);

wherein each device comprises a bus controller having a unique address (e.g. identification bits) (Fig. 5-8, ref. 220-230; col. 4, ll. 63-66; col. 11, l. 46 to col. 13, l. 22 and col. 15, l. 18 to col. 17, l. 49);

wherein the control module comprises means for communicating with each device over the common bus (Fig. 5-8, ref. 230; Fig. 11, ref. 230; col. 9, ll. 39-64; col. 13, ll. 17-22 and col. 15, l. 18 to col. 17, l. 49); and

wherein the common bus further comprises an end termination (e.g. termination connector; col. 16, ll. 1-4), which is removeably connectable to the cable unit (Fig. 1 and col. 15, l. 18 to col. 17, l. 49).

Adamson teaches a control system comprising a common bus (Fig. 1, ref. 110) including a repeater (Fig. 1, ref. 150) (col. 3, ll. 44-57).

It would have been obvious for one of ordinary skill in this art, at the time of invention was made to include Sitte's control system configuration and Adamson's repeater into AAPA's subsea installation for the benefit of utilizing the Controller Area

Network (CAN) protocol which permits efficient communication between individual devices including sensors and actuators at a faster data rate in a high security environment (Sitte, col. 2, l. 59 to col. 3, l. 5 and col. 4, ll. 1-38) and further extending the connection utilizing the repeater while reducing the cost by optimize the energy consumption for of the CAN network system (Adamson, col. 1, ll. 32-41 and col. 3, ll. 47-48) to obtain the invention as specified in claim 1.

9. As per claim 3, AAPA, Sitte and Adamson teach all the limitations of claim 1 as discussed above, where Sitte further teaches the control system comprising wherein the at least one modular cable unit comprises a cable having at least one electrical connector at each end (Sitte, Fig. 1 and col. 15, l. 18 to col. 17, l. 49), as the plurality of cable segments (Sitte, Fig. 1, ref. 31, 33, 35) would each have the connector at each end.

10. As per claim 4, AAPA, Sitte and Adamson teach all the limitations of claim 1 as discussed above, where Sitte further teaches the control system comprising wherein the common bus further comprises at least one distribution hub (Sitte, Fig. 1, ref. 15, 17, 20) which is removably connectable to the at least one modular cable unit (Sitte, Fig. 1; col. 7, l. 8 to col. 8, l. 51 and col. 15, l. 18 to col. 17, l. 49).

11. As per claim 8, AAPA, Sitte and Adamson teach all the limitations of claim 3 as discussed above, where Sitte further teaches the control system comprising wherein

said at least one electrical connector is removably connectable to at least one of said plurality of devices (Sitte, Fig. 1; Fig. 11 and col. 15, l. 18 to col. 17, l. 49).

12. As per claim 9, AAPA, Sitte and Adamson teach all the limitations of claim 1 as discussed above, where Sitte further teaches the control system comprising wherein the common bus comprises a CAN bus (Sitte, col. 4, ll. 1-38).

13. As per claim 10, AAPA, Sitte and Adamson teach all the limitations of claim 1 as discussed above, where Adamson further teaches the control system comprising wherein at least one of said plurality of devices comprises a battery (Adamson, col. 6, ll. 41-46).

14. As per claim 11, AAPA, Sitte and Adamson teach all the limitations of claim 1 as discussed above, where AAPA further teaches the control system wherein at least one of said plurality of devices comprises an electro-hydraulic pod (AAPA, Specification, p. 1, ll. 8-33).

15. As per claim 12, AAPA, Sitte and Adamson teach all the limitations of claim 1 as discussed above, where AAPA and Sitte further teach the control system comprising wherein at least one of said plurality of devices comprises an actuator (AAPA, Specification, p. 1, ll. 8-33 and Sitte, col. 2, l. 59 to col. 3, l. 5; col. 7, l. 8 to col. 8, l. 51).

16. As per claim 13, AAPA, Sitte and Adamson teach all the limitations of claim 1 as discussed above, where AAPA and Sitte further teach the control system comprising wherein at least one of said plurality of devices comprises a sensor (AAPA, Specification, p. 1, ll. 8-33 and Sitte, col. 2, l. 59 to col. 3, l. 5; col. 7, l. 8 to col. 8, l. 51).

17. As per claim 20, AAPA, Sitte and Adamson teach all the limitations of claim 3 as discussed above, where Sitte further teaches the control system comprising wherein at least one electrical connector comprises a female connector (Sitte, col. 15, l. 18 to col. 17, l. 49), as it would have been obvious to one of ordinary skilled in the art to implement the connector to be the female connector.

18. As per claim 21, AAPA, Sitte and Adamson teach all the limitations of claim 3 as discussed above, where Sitte further teaches the control system comprising wherein at least one electrical connector comprises a male connector (Sitte, col. 15, l. 18 to col. 17, l. 49), as it would have been obvious to one of ordinary skilled in the art to implement the connector to be the male connector.

19. As per claim 22, AAPA, Sitte and Adamson teach all the limitations of claim 3 as discussed above, where Sitte further teaches the control system comprising wherein at least one electrical connector comprises a signal termination component (Sitte, col. 15, l. 18 to col. 17, l. 49).

20. Claims 16-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Sitte (US Patent 5,469,150) and Longsdorf et al. (US Patent 6,006,338).

21. As per claim 16, AAPA teaches a control system for a subsea installation, the control system comprising:

a control module (Specification, p. 1, ll. 8-33); and

a plurality of devices (e.g. sensors, actuators) which are connected to the control module (Specification, p. 1, ll. 8-33);

AAPA does not teach the control system comprising: a common bus … the plurality of devices are each removably connectable to the common bus …a bus controller having a unique address … comprises a junction, at least one electrical connector and at least two control supply cables … .

Sitte teaches a control system comprising:

a common bus (Fig. 1, ref. 10 and Fig. 11, ref. 770, 772, 780, 782) which is connected to a control module (Fig. 5-8, ref. 220-230 and Fig. 11, ref. 220, 230, 704, 710, 712, 714, 730) and which comprises at least one cable unit (Fig. 1 and col. 15, l. 18 to col. 17, l. 49); and

a plurality of devices (Fig. 1, ref. 14, 16, 18-19, 21-22, 26-27, 29-30, 34) are each removably connectable to the common bus (Fig 1, ref. 10) (col. 7, l. 8 to col. 8, l. 51 and col. 15, l. 18 to col. 17, l. 49);

wherein each device comprises a bus controller having a unique address (e.g. identification bits) (Fig. 5-8, ref. 220-230; col. 4, ll. 63-66; col. 11, l. 46 to col. 13, l. 22 and col. 15, l. 18 to col. 17, l. 49);

wherein the control module comprises means for communicating with each device over the common bus (Fig. 5-8, ref. 230; Fig. 11, ref. 230; col. 9, ll. 39-64; col. 13, ll. 17-22 and col. 15, l. 18 to col. 17, l. 49); and

wherein the cable unit comprises a junction (Fig. 1, ref. 20 and Fig. 11, ref. 220, 230, 710, 712), at least one electrical connector (e.g. electrical connector located between the junction (Fig. 11, ref. 220, 230, 710, 712) and the sensors Fig. 11, ref. 702, 720)) and at least two control signals supplied between said junction and said electrical connector (e.g. control signal supply between the junction and the sensor element 702 of Fig. 11) (Fig. 1; Fig. 11; col. 4, ll. 39-45; col. 7, l. 8 to col. 8, l. 51 and col. 15, l. 18 to col. 17, l. 49), wherein the actuators would may be utilized in place of the sensors for receiving the supplied control signals.

Longsdorf teaches a control system comprising at least a cable connected to a connector (e.g. connector of a sensor) that are electronically jointed at the connector (Fig. 1-2; col. 3, l. 29 to col. 4, l. 50 and col. 5, ll. 24-30), in combination with Sitte's above teaching, the at least two control signal further includes at least two control signal supply cables that are electronically jointed at the connector, wherein the joining at the connector is implemented via a loop current (i.e. current loop).

It would have been obvious for one of ordinary skill in this art, at the time of invention was made to include Sitte's control system configuration and Longsdorf's loop

current into AAPA's subsea installation for the benefit of utilizing the Controller Area Network (CAN) protocol which permits efficient communication between individual devices including sensors and actuators at a faster data rate in a high security environment (Sitte, col. 2, l. 59 to col. 3, l. 5 and col. 4, ll. 1-38), and that it is also well known that current loop have the benefit of providing accurate signaling and able to supply power to the devices, and the combination further have the additional benefit of having a self diagnostic and set-up process transmitter that is able to communicate when there is inadequate power on the process link (Longsdorf, col. 2, ll. 29-36) to obtain the invention as specified in claim 16.

22. As per claim 17, AAPA, Sitte and Longsdorf teach all the limitations of claim 16 as discussed above, where Sitte further teaches the control system comprising wherein said at least one modular cable unit further comprises at least two control signal return cables (e.g. control signal return from the sensor element 702, 720 of Fig. 11) extending between said junction and said electrical connector (Sitte, col. 4, ll. 39-45; col. 7, l. 8 to col. 8, l. 51 and col. 15, l. 18 to col. 17, l. 49).

23. As per claim 19, AAPA teaches a control system for a subsea installation, the control system comprising:

a control module (Specification, p. 1, ll. 8-33); and

a plurality of devices (e.g. sensors, actuators) which are connected to the control module (Specification, p. 1, ll. 8-33);

AAPA does not teach the control system comprising: a common bus … the plurality of devices are each removably connectable to the common bus …a bus controller having a unique address … a unction, at least one electrical connector and at least two control signal cables … a current loop ….

Sitte teaches a control system comprising:

a common bus (Fig. 1, ref. 10 and Fig. 11, ref. 770, 772, 780, 782) which is connected to a control module (Fig. 5-8, ref. 220-230 and Fig. 11, ref. 220, 230, 704, 710, 712, 714, 730) and which comprises at least one cable unit (Fig. 1 and col. 15, l. 18 to col. 17, l. 49); and

a plurality of devices (Fig. 1, ref. 14, 16, 18-19, 21-22, 26-27, 29-30, 34) are each removably connectable to the common bus (Fig 1, ref. 10) (col. 7, l. 8 to col. 8, l. 51 and col. 15, l. 18 to col. 17, l. 49);

wherein each device comprises a bus controller having a unique address (e.g. identification bits) (Fig. 5-8, ref. 220-230; col. 4, ll. 63-66; col. 11, l. 46 to col. 13, l. 22 and col. 15, l. 18 to col. 17, l. 49);

wherein the control module comprises means for communicating with each device over the common bus (Fig. 5-8, ref. 230; Fig. 11, ref. 230; col. 9, ll. 39-64; col. 13, ll. 17-22 and col. 15, l. 18 to col. 17, l. 49); and

wherein the cable unit comprises a junction (Fig. 1, ref. 20 and Fig. 11, ref. 220, 230, 710, 712), at least one electrical connector (e.g. electrical connector located between the junction (Fig. 11, ref. 220, 230, 710, 712) and the sensors Fig. 11, ref. 702, 720)) and at least two control signals between said junction and said electrical

connector (e.g. control signal between the junction and the sensor element 702 of Fig. 11) (Fig. 1; Fig. 11; col. 4, ll. 39-45; col. 7, l. 8 to col. 8, l. 51 and col. 15, l. 18 to col. 17, l. 49).

Longsdorf teaches a control system comprising at least a cable connected to a connector (e.g. connector of a sensor) having a current loop (e.g. loop current) (Fig. 1-2; col. 3, l. 29 to col. 4, l. 50 and col. 5, ll. 24-30), in combination with Sitte's above teaching, the at least two control signals further include at least two control signal cables, and each cable's current loop, interconnecting the sensors to the junction, would route through the respective electrical connector and the junctions.

It would have been obvious for one of ordinary skill in this art, at the time of invention was made to include Sitte's control system configuration and Longsdorf's loop current into AAPA's subsea installation for the benefit of utilizing the Controller Area Network (CAN) protocol which permits efficient communication between individual devices including sensors and actuators at a faster data rate in a high security environment (Sitte, col. 2, l. 59 to col. 3, l. 5 and col. 4, ll. 1-38), and that it is also well known that current loop have the benefit of providing accurate signaling and able to supply power to the devices, and the combination further have the additional benefit of having a self diagnostic and set-up process transmitter that is able to communicate when there is inadequate power on the process link (Longsdorf, col. 2, ll. 29-36) to obtain the invention as specified in claim 19.

II. CLOSING COMMENTS

Conclusion

a. STATUS OF CLAIMS IN THE APPLICATION

The following is a summary of the treatment and status of all claims in the application as recommended by **M.P.E.P. 707.07(i)**:

a(1) CLAIMS REJECTED IN THE APPLICATION

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

b. DIRECTION OF FUTURE CORRESPONDENCES

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun-Kuan (Mike) Lee whose telephone number is (571) 272-0671. The examiner can normally be reached on 8AM to 5PM.

IMPORTANT NOTE

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alford Kindred can be reached on (571) 272-4037. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C.K.L./

September 11, 2008

Chun-Kuan (Mike) Lee
Examiner
Art Unit 2181

/Alford W. Kindred/

Supervisory Patent Examiner, Art Unit 2181